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Regional report on transposition of the RES-e directive- a study made by STEM within the frame of the contract RES-e Regions No EIE/04/234/ S07.38605, work package 2 – Deliverable No. 8 - Regional report on transposition

1. Real life conditions of the RES-e implementation in the region Västra Götaland in Sweden – summary of opinion among inhabitants about RES-e

The public acceptance of RES-e is in general high in the region. However, when it comes to the actual establishments the local population in some cases act in line with the so called NIMBY syndrome (Not In My Back Yard). There are different opinions as to what technologies could be involved. As an example there is more resistance from the inhabitants towards wind power installations in areas nearby the coastline or for recreation and tourism and small scale hydro power plants. On the contrary there is very little resistance towards biomass/biogas CHP and solar energy installations. The opinion about waste CHP differs according to its localisation owing to possible smell and collection of birds like seagulls and crows.

The relatively limited acceptance of wind power installations could be explained as bad visual effects and noise problems. Several inhabitants are hesitant to get wind power installed nearby owing to fear of decreases of market value of their properties. In some cases they are also afraid that a wind power plant could disturb the radio and television net and frighten the local life of birds. There are also hesitations among the inhabitants that wind power installations could destroy cultural heritage and nature preservation places. However, among areas where there is active farming it has proven that wind plants are more acceptable mainly from an income point of view to the farmer.

Most inhabitants find that installations of new small scale hydro power plants would affect the fishing life and nature in a negative way. However, their opinion about modernising small scale plants, which are already in place, is more positive. According to Swedish environmental protection rules it is also very difficult to get permit to build new small scale hydro power plants, but it is easier to get permit to modernise existing plants.

2. Under which conditions is grid access granted – which main problems are being encountered.

Before transpositioning of the RES-e directive (2001/77/EG) in Sweden the Swedish Energy Agency was asked by the Government to suggest what steps should be taken in order to implement the directive. The Swedish Energy Agency suggested that no changes in the Swedish legislation were necessary for the implementation of the directive. The reason is that the Swedish regulatory system admits all electricity producers access to the grid on reasonable conditions. In the RES-e directive it is also decided that the member countries could establish a legal framework to point out who would take the costs for grid access. The Agency stated that it is already decided in the Swedish Electricity Act how grid tariffs should be designed. The Agency shall upon request investigate if a grid company's costs for access to the grid meet these rules. Thus the Swedish Act does already include a legal framework for those who would make such technical adaptations, e.g. grid accesses and grid reinforcements, which are needed to access new electricity producers.

The Swedish Electricity Act does not discriminate any kind of source for electricity production. As to definitions of renewable sources they meet very well with the definitions mentioned in the RES-e directive in the sense that the Swedish Electricity Act does not include any special definitions (why the definitions in the RES-e directive are not excluded at all in the Swedish Act). The Swedish Government has sent out the report from the Swedish Energy Agency to relevant organisations for consideration and the RES-e directive was then transpositioned in a special law for consideration "lag om effektreserv m.m. N2003/1355/RS" and in the Government Bill "Vissa elmarknadsfrågor No 2002/02:85". The report from the Swedish Energy Agency was sent to the European Commission on October 2003 and the European Commission confirmed the transposition of the RES-e directive on May 26th 2004 in the document "COM(2004) 366 final".

One problem that is now being encountered could be that some electricity producers have complaints about high fees for access to the grid. These problems could already today be overcome by the fact the Swedish Energy Agency has the Government's task to monitor and upon requests by the producer investigate if the grid company's costs meet reasonable costs.

Viewpoints from stakeholders (planners, project makers and producers)

An inquiry has been made in June 2005 among planners, project makers and producers in the Västra Götaland region as to necessary conditions for accession to the grid, costs for grid accession and who is paying and different kinds of barriers in relation to grid accession. Concerning necessary conditions they mentioned general electricity rules, access to space on the grid and the fact that the net owner would accept input and quality of power. With reference to costs for grid accession one stake holder mentioned measurement equipment for delivered electricity and another stakeholder said the costs depend on who is the grid owner and pointed out that one of the biggest companies in Sweden is one of the most

expensive grid owners. And a third stakeholder mentioned that the costs are about 800-1200 SEK per grid connected MW plus a service cable in the 800 SEK alternative.

To the question about who is paying for the grid connection was the answer from all that the producer is paying all costs and the net owner is the one who is paid.

As to different kinds of barriers the stakeholders answered that it depends on how big the plant to connect is (bigger plants is difficult to connect owing to the fact that low tension is needed, why also rebuilding would be needed and in some cases a separate grid would be needed). Some of the stakeholders felt that the administrative procedure is longer when connecting big plants and that the big net owners are rather slow in the procedure of connecting to the grid.

Among questions about barriers there was also one put about metering arrangements and most stakeholders found them acceptable owing to well known technology. There was only one stakeholder feeling that the bigger grid owners require more metering equipment in the transformers than the smaller grid owners do.

Finally, when asking the stakeholders if grid access and administrative procedures help or hinder access to project finance, most answered “neither – nor” but one stakeholder found that the costs nowadays are too high when applying for connection to the grid. He also pointed out that the Swedish environmental law has not been able to facilitate the establishment of wind power plants and that the positive influence on environment from wind power must be better appreciated.

3. Have permission procedures been streamlined – which main problems are being encountered

As the Swedish Electricity Act from a competitive point of view includes a model where all producers of electricity are guaranteed access to the grid and as the Act does not discriminate any kind of source for electricity productions no special problems have been encountered. There is, on the contrary a special instrument in Sweden for promoting and speeding up the process of increasing the production and use of electricity from renewables, which is described in connection to the head line to the treatment of “guarantee of origin” in this study.

However, one problem has occurred and it is the fact that some electricity producers feel that they have to go through a long lasting legal procedure through Swedish laws before they build their plant, i.e. an environmental legal procedure, which is for the regional governments to admit and a building permit procedure, which is for the local governments to admit.

As to the environmental legal procedure the Swedish Government has recently in a Bill suggested to shorten the time of the legal procedure and also to make it possible not to have a whole plant tried when it comes to re-buildings and complementary buildings of a plant.

As to the building permit procedure the Swedish Government made an investigation in 2003, "SOU 2003:70", on potential barriers towards electricity from renewable energy sources. The results of the investigation were that the procedure was efficient as to rapidity of management and that the Planning and Building Act (1987:10) admits that certain areas for production of electricity from renewable energy sources can be considered as national interest which means that this kind of production is promoted in these areas, especially when it comes to the establishments of wind power.

Besides, The Swedish Government is for the moment preparing for a more coordinated permit procedure as to the two mentioned legal procedures of environment and building permits. Through merging certain regulations of the environmental legal procedure with certain regulations of the building legal procedure a more efficient environmental permit procedure would be reached. Two Governmental Committees dealing with the environmental and building legal procedures respectively have together worked out a suggestion to the Government, which means increased coordination between the two regulation procedures. It is suggested that certain building permit issues should be taken over by the regional environmental courts to handle. Thus the environmental courts would have to increase their competence of building permit issues. Another suggestion is to move building permit issues, examined by the Government today, to the regional environmental courts, due to the fact that they are often connected to regional projects and to the environmental law. The aim of this work is to simplify the permit procedure and make it easier for companies to establish and invest in new projects/plants.

Viewpoints from stakeholders (planners, project makers and producers)

In the inquiry made in June 2005 among planners, project makers and producers questions were also put about problems they may have in connection to permission procedures and streamlining. One stake holder dealing with small scale hydro power and another dealing with wind power felt no problems at all and one stake holder dealing with connecting electricity when building new district heating plants felt that shorter handling times for permission would be streamlined. Another stake holder dealing with wind power felt that the Municipality of Skaraborg has been better on handling times than the "streamlined long handling times".

4. What is the situation regarding "guarantee of origin" – is the situation improved compared to the time before transposition and what concrete measures could be taken

The Swedish Government has asked The Swedish Energy Agency and the Transmission System Operator, Svenska Kraftnät, to give a report on the guarantees of origin. The Swedish Energy Agency has reported that they are coordinating the task concerning the definitions mentioned in the RES-e directive, article 2, with similar definitions as to guarantees of origin and the recent **instrument** to promote electricity from RES i.e. **electricity certificates**. This coordination has not yet been possible to carry out due to the fact that the task of

definitions for the electricity certificates /guarantees of origin has not yet reached such a level of maturity that exchange of ideas have been possible.

In order to clarify this connection between the RES-e directive guarantee of origin and the guarantee of origin in the Swedish instrument “electricity certificates” a short survey of the contents and ideas of the instrument is given here below.

The aim of the instrument about the electricity certificates, which has been established in Sweden and turned into a law in 2003 is to promote and speed up the production of electricity from renewables, i.e. wind power, solar energy, geothermal energy, wave energy, bio fuels and hydro power. The system of the certificates is based on the fact that producers of electricity from renewables will receive certificate for every delivered MWh electricity. The selling of certificates will give the producers an extra income and will render better economic conditions for environmental adapted electricity production.

In order to create demand for certificates it will be mandatory for users of electricity to buy a certain amount of certificates in relation to his/her use of electricity, the so called “quota duty”. This trade of electricity certificates is a new kind of instrument within the energy sector in Sweden. It is a market based system and aims at increasing the production of electricity from renewable sources in a cost efficient way. The system gives renewable electricity an extra value in the shape of a certificate which shows that the electricity is produced from renewable sources. The certificates are sold to electricity distributors and to electricity users.

The electricity producer will – as before – besides be paid for every KWh electricity that is produced. The demand for certificates is created by the fact that it is mandatory for electricity distributors and certain electricity users to buy certificates, a so called quota duty, as described earlier. The quota duty meets a certain percentage share of the electricity use and is increasing every year. In that way an increasing market is created for renewable electricity and different kinds of energy sources will compete with each other. This competition shall stimulate technology development and cost efficiency. The income, which the electricity producer gets when selling electricity certificates, replaces the investment support earlier given to renewables by the Swedish Government.

Besides, the Swedish Parliament has decided to launch a law notifying the origin of the electricity in May, 2005 according to the current EC directive.

5. Views from stakeholders (planners, project makers and producers) how to increase production and use of electricity from renewable energy sources

In the enquiry made in June 2005 among stake holders in the Västra Götaland region they were also asked to mention what would be the most important steps to take to increase production and use of electricity from renewable energy sources. One stakeholder answered that the producer should be better paid. Another mentioned that the environmental legal procedure must be more effective and that support like the system with electricity certificates should be long term. A third stakeholder suggested that the monopoly of the grid should be abolished and that the building permit procedure short be shortened . Finally one stakeholder said

that is it sooner the (long lasting) procedures of the environmental and building laws that should be dealt with than economic issues.